

In addition to the above, an amount of Rs. 128-2-0 was spent in the divisions for repairing old boundary-marks.

(iv).—SURVEYS.

17. The following statement, received from the Forest Survey, gives the work and its cost during the forest year of 1896-97 with cost:—

Division.	BOUNDARY SURVEYS.		Total Cost.	REMARKS.
	Previous.	Of the year.		
	Sq. m.	Sq. m.	Rs. a. p.	
<i>Surat.</i>				
Triangulation 8"	141	} 979 13 11	{ Mándvi Taluka.
Traversing	10		
<i>North Tháná.</i>				
Detail Survey 8"	51.71	9,635 6 8	Máhim Taluka.
Total cost	10,615 4 7	

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

I.—REGULATION AND MANAGEMENT.

(a).—WORKING PLANS AND THEIR CONTROL.

18. The Working Plans Division was in charge of the following officers during the year:—

1st July 1896 to 12th November 1896	...	Mr. J. Dodgson.
13th November 1896 to 21st December 1896	...	Mr. T. R. D. Bell.
22nd December 1896 to 25th January 1897	...	Mr. R. C. Wroughton.
26th January 1897 to 30th June 1897	...	Mr. G. P. Millett.

Mr. Millett, the permanent Working Plans Officer, was on furlough from 1st July 1896, but he returned within the period of his leave and resumed charge of the division from the 25th January 1897.

19. During the year the Working Plans for the forests of the Godhra Mahál in the Panch Maháls Division and Máhim, Bassein and Vádá of the Tháná District were sanctioned by Government. The proposals for the Working Plan of the Kálol Mahál are before Government. The Working Plan of the Tulsi forests belonging to the Municipality of Bombay was prepared and submitted during the year and is also before Government.

20. The forests of the Hálol Mahál, Panch Maháls Division, were examined during the year with a view to the drawing up of a Working Plan for their management, but it was not completed before the close of the year.

21. A Working Plan also for the forests of the Sálsette and Kalyán Ranges of the Tháná District was under preparation, but was not completed.

22. In addition to this work the Working Plan Officer during the year supervised the working on the ground of the coupes in the Dáhánu, Máhim and Bassein Ranges. He also supervised the reserve marking in some of the Godhrá coupes in order that the Extra Assistant Mr. Ránade might obtain some idea of the work which he had to carry out throughout the Range under the Working Plan. Finally he supervised the marking on the ground by the Working Plan surveyors both of coupes of the year and in advance in the Tháná Divisions.

23. During the year 261 coupes containing 14,007 acres were marked out on the ground in the Tháná Divisions by 739 cairns and 23,362 subsidiary stones at a cost of Rs. 1,436, equivalent to Rs. 5-8-0 per coupe, or Re. 0-1-7 per acre.

24. In the Kálol Mahál of the Panch Maháls District, 60 compartments comprised in two blocks containing 9,407 acres were marked out on the ground by 137 cairns, 253 intermediate stones, mounds and 784 subsidiary stones at a cost of Rs. 364, equivalent to Rs. 6-1-0 per compartment, or 7 pies per acre.

25. In addition to this 677 coupes in advance were marked out in the Bhiwndy and Bassein Ranges by 2,359 cairns and 15,728 subsidiary stones at a cost of Rs. 1,749-14-9. And further 246 coupes were similarly marked out in the Máhim Range by the Forest Survey at a cost of Rs. 198-8-9.

Area brought under the control of sanctioned Working Plans up to 30th June 1897 in the Northern Circle.

Division.	Forest area in square miles.			Area for which Working Plans prepared and sanctioned up to 30th June 1897.	Proportion of Forest area under sanctioned Working Plans.	REMARKS.
	Reserved.	Protected.	Total.			
1	2	3	4	5	6	7
					Per cent.	
North Tháná ...	278	435	713	121	17	The whole forest area of these three Tháná Divisions is being exploited under a regular system of working, but sanctioned Working Plans have only been introduced for the areas shown in column 5.
Central Tháná ...	265	115	380	204	54	
South Tháná ...	210	211	421	62	15	
Tulsi belonging to the Bombay Municipality.	3	...	3	...	...
Surat ...	70	...	70	...	...
Dángs leased forests.	678	...	678	...	...
Panch Maháls ...	331	...	331	139	42	
Ahmedabad (Modása).	34	...	34	...	...
Total ...	1,869	761	2,630	526	20	

Progress made in Working Plans in the Northern Circle, Bombay Presidency, during the year 1896-97.

Division.	Preliminary proposals submitted for Working Plans.		Plans submitted for opinion and remarks of the Conservator of Forests, Northern Circle.		Plans finally sanctioned by Local Government on recommendation of the Conservator of Forests, Northern Circle.		REMARKS.
	No.	Area for which prepared.	No.	Area for which prepared.	No.	Area for which prepared.	
				Square miles.		Square miles.	
North Tháná	1	121	
Central Tháná	2	204	
South Tháná	1	62	
Tulsi, belonging to the Bombay Municipality.	1	3	...	...
Surat	
Dángs, leased forests	
Panch Maháls	1	34	1	139	
Ahmedabad (Modása)	
Total	2	37	5	526	

Progress made in Working Plans in the Northern Circle during the year 1896-97.

Division.	AREA FOR WHICH WORKING PLANS HAVE BEEN COMPLETED.		AREAS FOR WHICH WORKING PLANS ARE BEING COMPILED.		Areas for which Working-Plans have still to be compiled.	Total Forest area in Form No. 46.	REMARKS.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.			
North Tháná ...	121	592	713	Not shown in Form. No. 46.
Central Tháná ...	204	...	...	...	176	380
South Tháná ...	62	...	...	74	285	421
Tulsi, belonging to the Bombay Municipality.	...	3	...	...	...	3
Surat ...	...	...	...	...	70	70
Dángs, leased forests...	...	...	...	...	678	678
Panch Maháls ...	139	34	...	...	158	331
Ahmedabad (Modása) .	...	...	...	...	34	34
Total ...	526	37	...	74	1,993	2,630	

26. The number of coupes still to be marked in the blocks in the Tháná Division is 699 so far as settlement has been completed.

27. The following statement will show the number of coupes and their area marked for exploitation during the current year in the Tháná Divisions :—

Division.				No. of coupes marked for exploitation.	Area.		No. of coupes sold
					A.	g.	
North Tháná ...	...	...	...	96	5,279	32	85
Central Tháná ...	...	...	...	93	5,396	30	72
South Tháná ...	...	...	...	86	4,638	20	70
Total ...				275	15,315	2	227

28. From this statement it will be seen that 275 coupes were put up for sale, out of which 227 were sold. The remaining 48 coupes being in out-of-the-way places could not find purchasers. In addition to these 227 coupes, however, 15 coupes belonging to previous years were sold.

The work of writing up the control books unfortunately has been found much more difficult than was expected.

29. The records have had to be searched for 10 or 12 years back, and in many cases much of the information required was not forthcoming, and even when found, owing to want of method in the record, it has been most difficult to deduce the required data with any accuracy.

30. In paragraph 97 of last year's report I wrote: "I am in hopes that in consequence of new arrangements next year's figures (*i.e.* of coupe yield) may be more reliable, and, moreover, that I shall be in a position to report not only the material exported but also that reserved." I regret that I must confess to failure, due largely to the heavy strain caused by the Famine grass operations. The arrangement was to divide all the material to be exported into a certain number of classes and insisting on these and only those classes being employed in describing the material in the export passes issued by the coupe dépôt officer.

A co-efficient of cubic contents was calculated for each of these classes. In this way it was hoped that a very fairly accurate estimate of the material exported would be obtained. The contractors, however, opposed a most obstinate resistance to the innovation, which is most significant of the inaccuracy of the records of past years, and with a short-handed establishment further crippled by the withdrawal of two extra Assistant Conservators besides subordinates on Famine grass operations, the arrangement could not be efficiently enforced. One good result of the attempt, however, has been that desirable revisions in the classification have been indicated, and in the current year contractors have been made to understand at the time of purchasing the coupes that the arrangement is to be carried out. As the material is their own property and the record of the quantity has no effect on the sale price which is fixed beforehand by public tender, it is difficult to understand why the contractors should object to the arrangement. That they do so however most emphatically is shown by the fact that on the first date named not a single tender was received and a second call had to be made before any sales could be effected. The reason urged is, that the depôt officers are not sufficiently educated to be entrusted with measuring the material, but this has been met by so fixing the classes that a piece of string with 3 knots in it and a 10-foot bamboo are all that will be required for the efficient classification of the material. The similar record of material reserved has also not been a success, but as the arrangements were already fairly complete, though unnecessarily cumbersome, this failure has not been so marked.

31. The improved marking of reserves alluded to in paragraph 95 last year could not be introduced generally. Instead of an increased establishment there was only one crippled, as already stated, and for the most part the old system of reserve marking had to be resorted to. The Divisional Forest Officers, North and Central Tháná, however, marked personally a few coupes, stamping each reserve with a Government timber mark; but the Divisional Forest Officer, South Tháná, who for over two months was in direct charge of the grass operations, could of course not undertake anything of the sort. The present working season has now commenced and the extra establishment asked for has not been sanctioned, so that even next year's report will not, I fear, be able to record that this useful measure has been universally introduced, but it is earnestly hoped that this will be the end of the delay in its introduction.

32. The Godhra Working Plan, which comes into operation for the first time this season, will profit by the experience thus gained and its control record should be accurate from the very commencement.

II.—WORKING OF THE YEAR.

(a).—COMMUNICATION AND BUILDINGS.

33. The expenditure under this head incurred departmentally was Rs. 6,348-14-3 during the year. The details of the works for which this amount was spent are given in Form No. 51.

34. The following is the list of works carried out during the year by the agency of the Public Works Department:—

No.	Name of Work.	Amount expended.		
		Rs.	a.	p.
	ORIGINAL WORKS.			
	North Tháná.			
1	Putting up a window in the Wángáon Depôt House ...	15	1	2
	Central Tháná.			
2	Providing plank ceiling to the Record and Office-room of the Range Forest Officer's residence at Khardi ...	132	15	11
3	Additions and alterations to the Forest Depôt House at Kására ...	216	1	6

Number.	Name of Work.	Amount expended.
	ORIGINAL WORKS— <i>continued.</i>	Rs. a. p.
	<i>South Tháná.</i>	
4	Providing plank ceiling to Range Forest Office in the Mámlatdár's Kacheri at Sháhápur	145 10 3
5	Constructing a room for confiscated property for the Range Forest Officer in the compound of the Mámlatdár's Kacheri at Tháná ...	540 3 1
6	Additions and alterations to the Range Forest Officer's Office at Murbád	210 9 7
	Total ...	1,260 9 6
	REPAIRS.	
	<i>North Tháná.</i>	
1	Repairs to the Forest Office at Kelva-Máhim	30 5 0
2	Repairs to the Forest Depôt House at Manor	17 14 6
3	Do. do. at Sáwtá-bandar	17 13 4
4	Do. do. at Pálghar	17 7 10
5	Do. do. at Sanján	13 9 0
6	Do. do. at Wángaon	17 13 7
7	Do. do. at Gholvad	17 14 0
	<i>Central Tháná.</i>	
8	Repairs to the Forest Office at Khardi	41 8 10
9	Do. do. at Vádá	22 15 9
10	Repairs to the Forest Depôt House at Kasará	17 15 10
11	Repairs to the Office at Bassein	26 0 3
	<i>South Tháná.</i>	
12	Repairs to the Forest Office at Tháná	19 13 6
13	Do. do. at Bhiwndy	22 15 6
14	Repairs to the Forest Depôt House at Átgaon	17 10 6
15	Do. do. at Vássind	17 15 11
16	Repairs to the Forest and Sub-Registrar's Office at Kalyán ...	20 4 8
17	Do. do. at Murbád	24 7 5
18	Repairs to the Forest Depôt House at Wángni	18 4 11
	<i>Panch Maháls.</i>	
1	Repairs to the Forest Office at Dohad	13 15 0
	Total ...	396 13 4
	Grand Total ...	1,657 6 10

(b).—PROTECTION OF FORESTS FROM INJURY.

(1).—General Protection and Breaches of Forest Law.

(a).—General Protection.

35. There has been no change in the scale of Protective Establishment.

Proposals for increase of protective establishment are now before Government.

(b).—Breaches of Forest Law.

36. Cases tried by Magistrates as compared with the year 1895-96 were as follows:—

No.	Division.	1895-96.		1896-97.		PERCENTAGE OF FAILURES.	
		Conviction.	Acquittals.	Conviction.	Acquittals.	1895-96.	1896-97.
1	North Tháná' ...	34	7	13	9	17	40.9
2	South Tháná' ...	78	28	56	44	26.4	44
3	Central Tháná'...	58	8	29	5	12.1	14.7
4	Surat ...	8	...	6	1	...	14.3
5	Panch Maháls...	31	7	55	17	18.4	23.6
	Total ...	209	50	159	76	19.3	32.3

There has been a little decrease in the number of offences. The high rate of percentage in failures is notably to be seen in the North and South Tháná Divisions.

37. The following statement gives a classification of the new cases of the year under various heads of offences :—

Division.	Cases taken into Court.				Cases compounded.				Cases undetected.				Total Cases.				Grand Total
	Injury to Forest by fire.	Unauthorized fellings or appropriation of wood and other minor produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Injury to Forest by fire.	Unauthorized fellings or appropriation of wood, &c.	Grazing without permission.	Other offences.	Injury to Forest by fire.	Unauthorized fellings or appropriation of wood, &c.	Grazing without permission.	Other offences.	Injury to Forest by fire.	Unauthorized fellings or appropriation of wood.	Grazing without permission.	Other offences.	
North Tháná' ...	1	16	2	9	...	106	...	12	60	57	1	3	61	179	3	24	267
Central Tháná' ...	7	53	1	...	...	68	...	4	160	96	...	1	167	217	1	5	390
South Tháná' ...	6	60	8	1	8	137	1	5	149	263	2	...	163	460	11	6	640
Surat ...	3	4	...	...	1	10	...	8	20	2	...	...	24	16	...	8	48
Panch Maháls ...	6	34	21	21	...	98	3	19	184	28	80	...	190	160	104	40	494
Total ...	23	167	32	31	9	419	4	48	573	446	83	4	605	1,032	119	83	1,839

33. The offences committed in lands notified under Section 4 of the Indian Forest Act, but in which pending completion of settlement the offender could only be proceeded against under Section 43, Land Revenue Code, were 76 in number. The following statement gives the details and comparison with 1895-96 :—

No.	Division.	1895-96.					1896-97.				
		Number of cases.	Value of Forest produce.	Acquittals.	Convictions.	Amount of fines.	Number of cases.	Value of Forest produce.	Acquittals.	Convictions.	Amount of fines.
			Rs. a. p.			Rs. a. p.		Rs. a. p.			Rs. a. p.
1	North Tháná'...	25	382 1 0	...	25	150 13 0	21	253 11 0	...	21	291 10 0
2	Central Tháná'...	...	...	...	...	...	8	25 3 3	...	8	7 9 3
3	South Tháná'...	17	15 13 4	...	17	30 10 6	47	150 12 3	...	47	195 14 6
4	Surat ...	...	...	...	...	...	...	...	...	...	...
5	Panch Maháls ...	...	...	...	...	...	...	...	...	...	...
	Total ...	42	397 14 4	...	42	481 7 6	76	429 10 6	...	76	498 1 9

39. The following statement contains the comparison between the number of cases compounded under Section 67 of the Forest Act during the past and this year; it also shows the amount of compensation received :—

No.	Division.	Year.		Amount.
		1895-96.	1896-97.	
		.		Rs. a. p.
1	North Tháná	105	118	648 15 9
2	South Tháná	86	155	398 12 6
3	Central Tháná	75	70	603 3 4
4	Surat	21	19	126 4 0
5	Panch Maháls	117	120	265 1 0
	Total ...	404	482	2,042 4 7

40. The details of cases compounded under Section 67, Indian Forest Act, required by Government Resolution No. 1899, dated 13th March 1891, are given in the following statement:—

No.	Division.	Number of cases in which compensation was fixed at Rupees																									
		1	2	3	4	5	6	7	8	9	10	11	12	15	16	18	19	20	21	22	25	30	45	50	78	Total.	
1	North Tháná ..	36	28	12	9	7	4	2	2	2	3	2	1	1	...	...	...	3	2	...	1	...	2	1	...	118
2	Central Tháná	28	11	5	5	3	3	1	...	1	3	...	2	...	...	1	...	1	1	...	...	...	...	...	1	70
3	South Tháná ...	87	25	14	10	9	2	5	...	...	...	...	...	1	...	...	1	...	...	...	...	...	1	...	155	
4	Surat	8	3	2	1	1	...	...	1	...	...	...	...	...	...	1	...	...	...	1	...	...	1	...	19	
	Panch Maháls	89	21	3	2	3	...	1	..	...	..	...	...	...	...	...	...	...	...	...	1	...	...	...	120	
	Total ...	248	88	36	25	23	9	9	3	3	6	2	3	1	1	1	1	5	3	...	2	1	2	3	1	482	

(2).—*Protection from Fire.*

41. The following is the tabular statement showing offences by fire with results :—

Range.	DETAILS OF PROSECUTIONS FOR OFFENCES BY FIRE.					Amount of punishment.	REMARKS.
	Serial No. of Fire.	Areas burnt.	Character of offence (whether careless or intentional).	Whether acquitted or convicted.	Section of law under which convicted.		
		Acres.					
North Tháná ...	...	...	.....	.....	.....	.....
Central Tháná...	...	...	.....	.....	.....	.....
South Tháná.	1	30	Carelessness...	Conviction ..	Indian Forest Act 25 (b).	1 offender was fined one rupee and received 8 days' rigorous imprisonment.	
	1	10	Intentional ...	Do. ...	Do. ...	3 offenders were fined Re. 1 each and received 14 days' rigorous imprisonment each.	
	1	125	Do. ...	Do. ...	Do. ...	17 shikaries received 1 month's rigorous imprisonment each.	
	1	25	Do. ...	Do. ...	Do. ...	13 shikaries received 1 month's rigorous imprisonment each.	
	1	450	Carelessness...	Do. ...	Do. ...	1 offender was fined Rs. 30.	
Surat ...	2	50	Do. ...	Do. ...	Do. ...	1 offender received 15 days' imprisonment.	
	13	2	Do. ...	Do. ...	Do. ...	1 offender was fined Rs. 2.	
	18	60	Do. ...	Do. ...	Do. ...	1 offender received 1 month and 15 days' imprisonment.	
Panch Maháls	12	124/18	Do. ...	Do. ...	Do. ...	4 offenders were fined Rs. 200 and Rs. 100 were taken as compensation from them.	
	35	47	Do. ...	Do. ...	Do. ...	1 offender was fined Rs. 4.	
	93	8	Do. ...	Do. ...	Do. ...	Do. do. Rs. 10.	
	28	0/2	Do. ...	Do. ...	Do. ...	Do. do. Rs. 15.	

42. During the year special measures were adopted by appointment of patrols in all the Circle except the Dāngs. The following statement shows the progress and cost of these operations :—

SPECIALLY PROTECTED.												
Number.	Division.	Area in Square miles.				Proportion of failure to area attempted.		Cost.				Proportion of area under fire protection to total area of Forest in charge of Forest Department.
		Attempted.		Protected.				Per Square mile protected.		Per acre protected.		
		1895-96.	1896-97.	1895-96.	1896-97.	1895.	1896.	1895.	1896.	1895.	1896.	
							Rs. per cent.	Rs. per cent.	A. p.	A. p.		
1	North Tháná ...	383	888	365	379	4.6	2.3	2 4 0	4 7 0	0 7	1 3	100.
2	Central Tháná ...	314	371	297	343	5.5	7.4	23 4 0	10 4 0	0 6	0 3	97.
3	South Tháná ...	423	409	373	387	11.8	5.4	2 12 0	42 0 0	0 2	1 0	97.
4	Surat	69	69	51	62	26.0	10.1	64 4 6	57 12 2	1 7	1 5	100.
5	Panch Maháls ...	88	65	26	61	32.3	6.5	40 0 0	44 0 0	1 0	1 0	11.
	Dāngs (leased) ...	3	8	3	9	...	...	27 0 0	12 0 0	0 6	0 4	100.
	Total ...	1,230	1,310	1,115	1,240	9.3	5.3	159 8 6	170 7 2	4 4	5 3	75.
						Protected by Establishment.						
1	Central Tháná ...	...	61	...	58	...	5	.....	.....	...	...	3.
2	Surat (Dāngs) ...	675	670	...	...	100	100	.....	.....	...	...	100.
3	Panch Maháls ...	294	267	50	223	20.4	16.8	.....	.....	...	...	83.
	Total ...	969	998	50	281	24.8	71.8	.....	.....	...	...	61.3

On the whole a decided advance in protection is recorded. I fear, however, that too much should not be made of it.

43. In Tháná an increased demand for grass no doubt influenced the success of the measures undertaken, but at the same time little or no reliance can be placed on the figures claimed, especially in South Tháná. As has already been noted, the Sub-Division Forest Officer was engaged full time on famine fodder operations practically the whole season, and the Divisional Officer also was tied to one camp on the railway for nearly two months of the season, so that efficient check on the returns of area burnt was simply impossible. So far as undersigned could judge, from a passing view of the country, the area burnt seemed to be very much as usual. The low percentage burnt in North Tháná is significant when it is remembered that it is the "jungli" division par excellence.

44. The Surat fires show a great improvement and are probably fairly trustworthy. As usual the area burnt represents the results of a few large fires—3 in the present season—in the large reserve in the east of the Mándvi Range.

45. In the Panch Maháls 65 square miles were specially protected and the result is gratifying. A special feature of this success is the preservation of the forest on the slopes of the Páwághad Hill from fire for the first time in the memory of man. The Divisional Forest Officer guarantees the accuracy of the figures, which also is most satisfactory, and this result has been obtained at a very reasonable rate considering that a good deal of cost of initiation (line-cutting) is included in this rate. The area unprotected, or rather not specially protected, also shows an improved percentage, probably also due to some extent to the enhanced value of the grass on account of scanty rainfall and consequent short supply.

46. The total recorded number of fires during the year was 605 against 688 of 1895-96. The total area burnt was 74,180-acres against 114,563, from which it is far to conclude that the efforts made to prevent and suppress fires are gradually beginning to meet with some success, since both the number of fires reported and the area burnt over are both well below the figures of last year.

Division.	A		B		C												Causes unknown.		Total (A, B and C).					
	Fire caused by accident or through carelessness in burning fire-lines.		Fire entering the Forest by crossing exterior fire-traces.		FIRE BEGINNING THE INSIDE OF RESERVE OF FIRE-TRACKED AREA.																			
					Owing to carelessness or accident.						By intentional firing.													
					By workmen employed in the Forest.		By villagers, travellers, &c., passing through the Forest.		By Railway engines.		By lightning or by fire-balloons.		In order to obtain new grass.		In order to turn out game or to reduce cover.						Maliciously fired.		Total.	
Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.	Number of fires.	Area burnt in acres.					
North Tháná ...	3	41	3	430	...	2	60	..	...	...	...	...	...	8	824	...	...	8	824	45	4,390	61	5,745
Central Tháná...	4	167	1	160	3	172	1	50	1	25	...	...	...	3	167	2	74	5	241	152	11,883	167	12,088
South Tháná ...	3	78	81	3,989	3	22	8	84	...	...	...	...	...	2	361	2	167	4	528	114	16,242	163	10,945
Surat ...	...	...	1	50	...	23	4,103	...	...	...	...	...	...	...	...	...	...	...	...	...	...	24	4,153
Panch Maháls ...	6	174	37	11,419	1	7	65	8,890	7	1,912	...	...	...	...	...	12	560	12	560	62	7,679	190	30,641
Total ...	16	460	73	16,048	7	201	99	13,187	8	1,937	13	1,352	16	801	29	2,153	373	40,194	605	41,890

(3).—*Regulation of Grazing and Protection from Cattle.*

47. The following statement gives details of cattle impounded during the year under report :—

Number.	Division.	FROM OPEN FORESTS.		FROM CLOSED FORESTS.		TOTAL.	
		1895-96.	1896-97.	1895-96.	1896-97.	1895-96.	1896-97.
1	North Tháná ...	690	391	1,478	1,089	2,168	1,480
2	South Tháná ...	...	...	1,242	1,324	1,242	1,324
3	Central Tháná ...	51	37	1,517	2,076	1,568	2,113
4	Surat ...	839	757	628	718	1,467	1,475
5	Panch Maháls ...	1,330	1,805	771	2,328	2,101	4,133
	Total ...	2,910	2,990	5,636	7,535	8,546	10,525

48. The grazing rules, sanctioned under Government Resolution No. 4596, dated 7th July 1891, were modified a little in respect of the Panch Maháls Division under Government Resolution No. 1663, dated 2nd March 1897, under which Rule XVII has been cancelled. It was brought to the notice of Government that this rule could not be worked in the Panch Maháls in the circumstances in which the cattle of the district are herded.

In the Surat Division the grazing rules were in force, whereas in Tháná, except Bassein, Bhiwandi, Kalyán, they have not yet been introduced.

Fencing.

49. There were no fencing operations undertaken in the Tháná District, except that a coupe was enclosed with "Euphorbia" at a cost of Rs. 7-4-0 as an experiment in the South Tháná Division. In Surat the reserve forest of Goema was fenced in with wire at a cost of Rs. 207-12-0. In the Panch Maháls no fencing was done.

Civil Suits.

50. There have been two civil suits pending since last year. One is Raghunath Vithal Desai v. The Secretary of State for India, and the other Govind Atmáramshet of Bassein v. the Range Forest Officer, Bassein, and others. The former has sued for the recovery of Rs. 402-10-0 deducted from his deposit on account of breach of contract agreement, and the latter for the recovery of damages amounting to Rs. 4,999 suffered by the complainant on account of being criminally prosecuted for theft of forest produce.

Criminal Cases.

51. In North Tháná a forest guard was prosecuted for receiving bribes, convicted and sentenced to one month's imprisonment with hard labour.

In the South Tháná Division a writer guard was prosecuted for a similar offence, but the case was not decided before the end of the year.

In the Panch Maháls two guards were convicted and fined Rs. 20 each for assaulting their superior officer, the round guard.

A guard was also prosecuted, convicted and sentenced to three months' imprisonment for receiving a bribe from a Bhil in the Dohad Range.

Five persons were prosecuted for obstructing forest officers in connection with the building of a forest post at Rena in the Godhra Range, and two of them were mulcted in a fine of Rs. 50 each, one Rs. 30, and the fourth Rs. 20. The fifth was discharged.

*(c).—IMPROVEMENT OF FOREST GROWTH.**(1).—Natural Reproduction.*

52. Generally speaking natural reproduction by seed was not satisfactory during the year for want of rain at the close of the monsoon. However it is reported that in certain localities where the ground was moist, reproduction was fairly good. The reproduction by coppice shoots in coupes was also fairly good. It is observed that where the contractors started felling operations in coupes early in September and October, the teak shoots threw out very strong coppice shoots, but where the fellings were delayed until after December the coppice shoots were found to be poor and in many cases no shoots appeared at all.

(2).—Artificial Reproduction.

53. Transplanting of plants and broad-casting of seed were done by subordinates as usual, but the results were very poor owing to failure of rain.

54. The nursery started last year at Godhra in the Panch Maháls Division has been in full working order, several thousands of plants of teak and other species have been raised and are being prepared for transplantation. The fruit-tree plants, seed for which was purchased with the funds given by the Collector from local funds, are reported to be in a flourishing condition. This nursery has been provided with a Máli to look after the sowing operations, and it has been fitted up with watering apparatus.

The nursery at Vejalpur in the Surat Division is also doing well. Thousands of transplants raised in this nursery have been planted out in several reserves in the Bulsár Range.

(3).—Early Thinnings.

55. No such operations are carried out in this Circle and they are not necessary.

(4).—Other operations for the improvement of the growing stock.

56. In all the Divisions creeper-cutting was undertaken to improve the growing stock. In the Tháná Division it was done both by the guards and paid labour. The cost thus incurred in the three Tháná Divisions amounted to Rs. 633. With this creeper-cutting, a curious fact has been reported by the Divisional Forest Officer, South Tháná. He says that in the Murbád and Sháhápúr Ranges the wild tribes assisted materially in the destruction of creepers by digging up the roots for food. This particular climber is botanically termed *Dioscorca bulbifera*.

(5).—Experiments.

57. There were no experiments worth recording.

(d).—EXTRACTION AND TRANSPORT OF MAJOR FOREST PRODUCE BY LAND OR WATER.

58. There is nothing special to record under this head.